Alcohol Use in Pregnancy

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Understanding the factors that contribute to women's alcohol use in pregnancy is of critical importance to women's health and prevention of Fetal Alcohol Spectrum Disorder (FASD). Alcohol use in pregnancy is influenced by a range of contextual and structural factors, including poverty, histories of trauma and violence, physical and mental health concerns, normalization of alcohol in social networks, sociocultural and economic vulnerabilities and disadvantage, and child welfare involvement. Therefore, beyond supporting individual change, it is necessary to address a range of structural and systemic issues through the adoption of emerging gender-, trauma-, cultural, and equity-informed interventions.

Fetal Alcohol Spectrum Disorder | prevention | harm reduction | trauma-informed | women-centered | women's health | maternal health | substance use

1. Introduction

Globally, an estimated 10% of women consume alcohol during pregnancy, with the highest rates of alcohol use during pregnancy being found in Russia (36.5%), the United Kingdom (41.3%), Denmark (45.8%), Belarus (46.6%), and Ireland (60.4%) [1]. Despite ongoing public health efforts to address alcohol use during pregnancy in countries like Australia, Canada, Denmark, France, and the USA, rates are expected to increase [1][2][3].

In Canada and the USA, researchers have noted that while the prevalence of alcohol use remains higher among boys and men, the gender gap is narrowing, particularly between young adults. In some countries, this convergence has been attributed to changes in gender norms and roles [3][4]. Greater economic power, women's entry into the workforce, and more equitable cultural and economic circumstances may be some reasons for an increased parity of alcohol use rates between men and women [3]. However, an increase in products and targeted advertising towards women that posits alcohol as fun—increasing social connectedness, friendships, and sexual attraction, and as an aide for coping and relaxation, [5][6][7] are also likely factors informing women's increasing alcohol use.

The increase in women's alcohol use is cause for concern. Researchers have identified sex-specific effects of alcohol on health, which have prompted the release of national guidelines related to low and lower risk alcohol use [8][9][10]. Moreover, increased rates of alcohol use during pregnancy remains a serious public health concern, as prenatal alcohol exposure (PAE) can lead to miscarriage, stillbirth, premature birth, or result in Fetal Alcohol

Spectrum Disorder (FASD), a disability and diagnostic term which refers to the lifelong brain- and body-related impacts of PAE [11].

Understanding the factors that contribute to women's alcohol use in pregnancy is of critical importance to FASD prevention. Given the normalized role of alcohol use in daily life and social occasions in many societies, it is not uncommon for women to unknowingly consume alcohol prior to pregnancy recognition [12][13][14]. However, for those who use alcohol post-pregnancy recognition, intersecting contextual factors may influence their use, such as: peer influences and social pressures; limited provision of prenatal alcohol use risk information due to discomfort on part of health and social care providers to discuss alcohol use with women and their support networks; or conflicting or unclear information received from health care providers surrounding 'safe levels' of alcohol during pregnancy [15][16]. Confusion around what is safe may also result from women's exposure to conflicting messaging in public discourse, or from family and friends, the media, or online pregnancy content where information around healthy behaviours during pregnancy may be outdated, incorrect, or not evidence based [17][18].

Alcohol use in pregnancy may also be influenced by a range of contextual and structural factors, including poverty, histories of trauma and violence, physical and mental health concerns, sociocultural and economic vulnerabilities and disadvantage, and child welfare involvement [19]. Pregnant and parenting women who use substances such as alcohol can often face a number of personal, institutional, and systemic barriers to accessing services. These include discrimination, racism, stigmatization, lack of mental health support, and avoidance of health and social services out of fear of punitive responses [19].

Despite these challenges, pregnancy is a period of transition that can represent changes in women's personal identity, daily life, responsibilities, and relationships [19][20]. Parenting can place additional demands and stress on women, impacting the wellbeing of new mothers [20]. This is often exacerbated among Indigenous women, women of colour, and women of a lower socioeconomic status (SES), where there has been oversurveillance, ongoing stigma, and a lack of meaningful attention to the impacts of colonization and intergenerational trauma on individuals and communities [21][22].

There is a small but growing body of qualitative literature that explores women's perspectives, and privileges their voices, in the discourse relating to alcohol use, abstention, and reduction during pregnancy.

2. Factors Associated with Alcohol Use, Reduction, and Abstinence in Pregnancy

Pregnant and recently postpartum women articulated the duality of alcohol being a component of their social environments and experiencing varying degrees of social pressure to drink [23][24][25][26], while simultaneously experiencing or holding their own discriminatory views around alcohol use during pregnancy [27][25][26][28][29][30][31][32]. Women also expressed the challenges in accessing reliable information about alcohol use in pregnancy, with many being confused after receiving inconsistent or contradictory messaging and a lack of consensus around safe levels of alcohol use during pregnancy [23][27][33][24][25][34][35][36]. Other women, who received abstinence-only

information, articulated that this approach felt controlling and increased stigma, particularly when they were unable to reduce or abstain from alcohol use [37][34]. These feelings were exacerbated among women who felt unable to discuss alcohol use with their healthcare providers out of fear of judgement, child removal, or criminalization [38][39][33][40]. The associated guilt and shame can impact women's ability to access care or their confidence to parent [37][30][41].

These dualities are fundamental to understanding the complexities of alcohol and other substance use during pregnancy. By using the Action Framework for Building an Inclusive Health System (*Stigma Action Framework) released in 2019 from Canada's Chief Public Health Officer* to explore influencers across different levels, the results highlighted how, despite the literature's focus on individual choice and prenatal alcohol use, the barriers and facilitators to women's alcohol use were rarely a result of individual choice, but rather a reflection of interpersonal, institutional and population-level factors. Critically, the results also highlight key gaps in this literature where themes were un- and underexplored (e.g., harm reducing policy, practice, and alcohol use messaging; the role of safe, trusted; and accessible services in supporting women during pregnancy and postpartum periods). In Table 1, we demonstrate the findings of this review across the themes and different levels, while highlighting identified gaps in the literature (in grey cells).

Table 1. Overview of the Findings and Gaps in the Literature Across Analytical Themes and Sub-themes Related to Barriers and Facilitators to Alcohol Use in Pregnancy.

Themes and Sub-themes		Individual	Interpersonal	Institutional	Population
Social relationships and norms	***Unsupportive***	Feeling as though there are a lack of alternatives to alcohol use Perception that alcohol use is not risky/harmful	Lack of support from friends, family, and partners to reduce alcohol use Partners unchanged alcohol use Normalized alcohol use in social situations	Abstinence-only policies	Unsupportive norms favouring alcohol use in moderation Misinformation Lack of awareness regarding harms of alcohol use and FASD
	Supportive	Personal strengths Feeling connected to the fetus/baby	Support from others to reduce/abstain from alcohol Joint alcohol use decisions with partners	Abstinence-related policies Non-judgmental care Harm reducing institutional policies/culture	Supportive social norms that normalize alcohol reduction
Stigma (as a barrier to reducing alcohol use in pregnancy)		Limited self-esteem/capacity to seek support Internalized stigma (limiting self-	Judgement related to alcohol use in pregnancy Belief that alcohol use in pregnancy	Punitive institutional policies that prompt child welfare or justice involvement	Dichotomous notions of 'good' and 'bad' mothers

Themes and Sub-themes		Individual	Interpersonal	Institutional	Population
		esteem/capacity to seek support)	results in an inability to parent	Discriminatory institutional practices that prejudice based on SES, ethnocultural identity, pregnancy status, alcohol or substance use, or mental health	Discrimination related to SES, gender, mental health status Punitive laws and policies Racism Punitive approaches for alcohol use
Trauma and Stressors (as barriers to reducing alcohol use in pregnancy)		Alcohol as a coping mechanism Feeling unsafe Feeling disconnected from the fetus/baby	Lack of trusted relationships/social support network Lack of safety due to another External expressions of trauma Domestic and intimate partner violence	Lack of access to essential resources Lack of outreach/access to care Intergenerational/recent institutional trauma Institutional lack of safety	Colonial policies Intergenerational trauma Structural disparities (e.g., poverty)
Alcohol messaging and information	***Harmful***	Confusion around how to interpret information *See internalized stigma and trauma*	Conflicting, unclear and/or harmful messaging from healthcare providers, friends, and family Limited provision of brief interventions and health information related to pregnancy and alcohol use	Abstinence-only, judgmental, and stigmatizing alcohol use messaging, education and policy Gendered care that is only geared towards women's health	Unclear and evolving national alcohol use policies and guidelines Stigmatizing public alcohol abstinence messages Lack of awareness harms of alcohol use and FASD Gendered policies that frame preconception and prenatal care as a women's-only issue
	Harm Reducing	*See supportive relationships and norms*	Receiving trusted, clear and consistent messaging from	Trauma-informed, harm reducing, non-stigmatizing messaging and policy Patient-oriented	Harm reduction-oriented policies and guidelines for alcohol use during

Themes and Sub-themes	Individual	Interpersonal	Institutional	Population
		healthcare providers	care/information Integration of partners in prenatal care	pregnancy Harm reducing mass media campaigns and messaging
Access to trusted, equitable care and essential resources (facilitating alcohol reduction/abstinence in pregnancy)	Access to care without fear of failing to reduce alcohol use	Supportive relationships Support accessing resources Consistent access to prenatal care	Adoption of harm reduction oriented, gender-, violence-, and trauma-informed practice Holistic and integrated pregnancy care Addressing structural disparities Adoption of patient-oriented care Integration of partners in prenatal care	Laws, policies and media supporting women and men's health and wellbeing Structural security Gender transformative interventions and campaigns for men

Grey cells indicate where there were gaps in the included literature.

The interventions being applied and evidenced in Canada and Australia include: gender-informed and inclusive awareness building that reaches women, their partners and the public; trauma-, gender-, violence-, and culture-informed and relationship-based brief intervention supported by a range of health and social care providers; access to welcoming, non-judgmental services, and access to services that wrap a wide range of needed practical supports around mothers and their children [16][19][21][42][43][44]. These institutional and population level interventions act as remedies to the challenges cited by pregnant women who use alcohol. In this way, recommendations for action can move beyond the usual recommendations for supporting individual change to be more accurately focused on service and system level changes that have the potential to make individual change possible.

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